

**ABSTRACT**

5 A photodetector formed in an active area of a semiconductor substrate of a first conductivity type, including a MOS transistor and a photodiode formed of the junction between the substrate and a region of a second conductivity type also forming the source of the MOS transistor, a heavily-doped layer of the first conductivity type covering the source region and a portion of the substrate, said portion of the substrate being delimited by an opening of the source region extending in a centered manner from the side of the source region opposite to the channel region of the transistor, towards this channel region.